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OC-M79-239
20 APR 1979

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MEMORANDUM FOR: Director of Data Processing

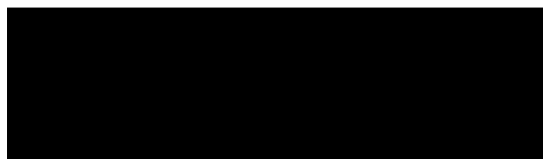
25X1A

FROM : [REDACTED]
Director of Communications

SUBJECT : Headquarters Area Data Distribution (U)

REFERENCE : OCC-M-78-166, dated 10 April 1978

Pursuant to the SAFE Security Committee's recommendation contained in the reference, this office studied the impact of the factors leading to the SAFE decision on other Headquarters area data distribution requirements. The policy paper which came out of this study is attached. It recommended to the Director of Security that Black data distribution be required for all future Headquarters systems, and he concurred. (U/AIUO)



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Attachments:

1. OC-M79-122
2. OCC-M-78-166

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ORIGINAL 032775
☒ DECLASSIFIED 16 Apr 99
EXTENDED BY 032775
REASON 3D3

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Approved For Release 2001/03/06 : CIA-RDP84-00933R000300310007-0

DC-M 79-122
23 FEB 1979

MEMORANDUM FOR: Director of Security

FROM : [REDACTED]
Director of Communications

SUBJECT : Headquarters Area Data Distribution (U)

1. Action Requested: Your concurrence with a policy requiring encryption of bus communications and encouraging an evolution to encrypted data distribution throughout the Headquarters area is requested in paragraph three. (U)

2. Background: The selection of a Black communications architecture for SAFE's wideband communications system (WCS) followed a careful examination of security factors both unique to SAFE and common to the general problem of classified data distribution. Inasmuch as SAFE communications on the WCS will be secured by end-to-end encryption, the WCS need not and will not be installed with the physical security protection features required for a classified plain text (Red) wireline distribution system. Since the WCS is intended to provide communications capacity for systems other than SAFE, such as [REDACTED] the Black architecture decision applies to these systems as well. This memorandum will explore further the impact of this decision and propose a general policy for the protection of Headquarters area data distribution. (C)

3. In considering the case for a general Headquarters area data distribution policy, it is important to review the factors which led to the decision to implement Black distribution on the SAFE project.

a. Protection - A Red wireline distribution system relies on conventional physical security protection. A Black system provides a higher degree of protection because all data is encrypted on an end-to-end basis. A Black distribution system also reduces TEMPEST hazards by limiting the potential problem areas to the information processors and terminal devices.

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SUBJECT: Headquarters Area Data Distribution (U)

b. Cost - The SAFE security evaluation concluded that although the initial cost of cryptographic protection is higher than (but comparable to) the cost of physically securing a Red wireline distribution system, the additional cost is justified on the basis of the increased protection afforded.

c. Vulnerability of Bus Communications - An inherent characteristic of a bus-type wideband communication system is distribution of the totality of system communications to all points on its path. Conversely, a distribution system using discrete conductors limits data distribution to a relatively direct route from source to destination. The availability of such a large concentration of data at any point on a Red bus adds a higher level of concern for the potential vulnerability of such systems. (C)

4. Security through compartmentation is another factor which should be considered. SAFE is designed to operate in a dedicated mode, i.e., spillage or misrouting of data within the system is not a significant security concern. On the other hand, the DDO has levied a requirement for WCS service with an explicit request for compartmentation protection. The proposed SAFE cryptographic system provides compartmentation security for communications as a virtue of end-to-end encryption. (C)

5. OC is projecting a significant increase in secure voice service over the next few years. Although the security factors for voice and data are identical, the magnitude of the voice distribution requirement and the lack of available cost-effective encryption equipment may make the use of Red distribution a necessity for years to come. In the Headquarters building, a shift to WCS for data circuits should make considerable Red distribution capacity available for expanded secure voice. (C)

6. Recommendation: In consideration of both the security factors and the near-future availability of bus communications capacity, it is recommended that Black data distribution be

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required for all new Headquarters data distribution requirements scheduled for implementation after the installation of the SAFE wideband communications system. (C)

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CONCURRENCE:

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Director of Security

15 Mar 1979
Date

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OCC-M-78-166

10 April 1978

MEMORANDUM FOR: Director of Data Processing

FROM : [REDACTED]
Chairman, OS/OC Security Review Committee

SUBJECT : Security Review of SAFE Proposals (U)

25X1A 1. (U/AIUO) Attached are the findings of the Security Committee Review for the SAFE proposals submitted by [REDACTED]. It is the recommendation of the Security Working Group that the BLACK system bus architecture be selected for the SAFE program.

2. (C) The three key factors which impact the conclusions and recommendations for the report are:

a. The totality of sensitive data on a RED bus,

b. The budgetary constraints for a labor intensive on-going line surveillance program deemed essential for a RED bus,

c. The advancement of the state-of-the-art anticipated in the field of microminiature technical collection equipment.

3. (U/AIUO) We, ODP/OC/OS, are entering the next generation of information handling within the Agency and within the Intelligence Community. It is imperative that crucial decisions be made at the entry point to obviate the recognized expense of retrofits.

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[REDACTED]

Attachment:
As Stated

E2, IMPDET CL BY: 390969

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